

CLAIMS

What is claimed is:

1. An electrically driven toothbrush comprising:

a handle at a first end of the toothbrush;

a head at a second end of the toothbrush;

a rotatable shaft extending from the handle to the head and having a

- 5 first longitudinal central axis;

a first bristle holder mounted with a first pivot or hinge to the head and associated with a remote end of the shaft, the remote end of the shaft being received in a slot of the first bristle holder for driving the first bristle holder in an oscillating movement; and,

- 10 a second bristle holder movably mounted to the head and drivingly engaged by a rigidly mounted portion of the first bristle holder.

2. The electric toothbrush of claim 1 wherein the second bristle holder includes a cam follower portion extending from a surface thereof, and wherein the rigidly mounted portion of the first bristle holder includes a cam, the cam being operative to engage the cam follower, the electric toothbrush further comprising a

- 5 resilient member operative to bias second bristle holder toward the first bristle holder.

3. The electric toothbrush of claim 1 wherein the rigidly mounted portion comprises a pin and wherein the second bristle holder includes one of a pivot and hinge, the one of a pivot and hinge being offset from a center of the second bristle holder, the one of a pivot and hinge being operative to pivotably associate the second

- 5 bristle holder with the head section of the toothbrush, the second bristle holder including slot on a side thereof, the slot being operative to receive the pin.

4. The electric toothbrush of claim 1 wherein the rigidly mounted portion comprises a pin and wherein the second bristle holder includes a pivot, the pivot being approximately centrally located relative to the second bristle holder, the pivot being operative to pivotably associate the second bristle holder to the head section of the

- 5 toothbrush, the second bristle holder including a slot on a side thereof, the slot being operative to receive the pin.

5 5. The electric toothbrush of claim 1 wherein the rigidly mounted portion comprises a pin and wherein the second bristle holder is pivotably associated to the head section and includes a pivot portion located within a body of the second bristle holder, the pivot portion being disposed transversely to a longitudinal axis thereof, the second bristle holder including a slot slanted at an angle relative to a plane defined by the body of the second bristle holder, the slot operative to receive the pin.

5 6. The electric toothbrush of claim 1 wherein the rigidly mounted portion comprises a pin and wherein the second bristle holder is pivotably associated to the head section and includes a pivot portion located within a body of the second bristle holder, the pivot portion being disposed transversely to a longitudinal axis thereof at approximately a central region thereof, the second bristle holder including a slot slanted at an angle relative to a plane defined by the body of the second bristle holder, the slot operative to receive the pin.

7. An electric toothbrush comprising:
a shaft, the shaft including a cam at a remote portion of the shaft;
a motor operative to rotate the shaft;
a first brush section operatively coupled to the cam for being driven in
5 a first motion; and,
a second brush section longitudinally separated from the first brush section and driven in a second motion by a rigid element of the first brush section.

8. The electric toothbrush of claim 1 wherein the brush section includes a cam follower portion extending from a surface thereof, and wherein the rigidly mounted portion of the first brush section includes a cam, the cam being operative to engage the cam follower, the electric toothbrush further comprising a resilient
5 member operative to bias the second brush section toward the first brush section, whereby as the motor rotates the shaft the first brush section is driven in an oscillatory manner causing the cam to cyclically engage the cam follower thereby driving the second brush section longitudinally away from the first brush section, and to cyclically disengage from the cam follower thereby allowing the resilient member to
10 urge the second brush section back toward the first brush section.

9. The electric toothbrush of claim 1 wherein the rigidly mounted portion comprises a pin and wherein the second brush section includes one of a pivot and hinge, the one of a pivot and hinge being offset from a center of the second brush section, the one of a pivot and hinge being operative to pivotably associate the second
5 brush section with a head section of the toothbrush, the second brush section including a slot on a side thereof, the slot being operative to receive the pin, whereby as the motor rotates the shaft the first brush section is driven in an oscillatory manner causing the pin to cyclically engage first and second walls of the slot thereby driving the second brush section to oscillate about the pivot.

10. The electric toothbrush of claim 1 wherein the rigidly mounted portion comprises a pin and wherein the second brush section includes a pivot, the pivot being approximately centrally located relative to the second brush section, the pivot being operative to pivotably associate the second brush section to a head section of the
5 toothbrush, the second brush section including a slot on a side thereof, the slot being operative to receive the pin, whereby as the motor rotates the shaft the first brush section is driven in an oscillatory manner causing the pin to cyclically engage first and second walls of the slot thereby driving the second brush section to oscillate about the pivot.

11. The electric toothbrush of claim 1 wherein the rigidly mounted portion comprises a pin and wherein the second brush section is pivotably associated to a head section of the toothbrush and includes a pivot portion located within a body of the second brush section, the pivot portion being disposed transversely to a
5 longitudinal axis thereof, the second brush section including a slot slanted at an angle relative to a plane defined by the body of the second brush section, the slot operative to receive the pin, whereby as the motor rotates the shaft the first brush section is driven in an oscillatory manner causing the pin to cyclically engage upper and lower walls of the slanted slot thereby driving the second brush section to oscillate about the
10 pivot.

12. The electric toothbrush of claim 1 wherein the rigidly mounted portion comprises a pin and wherein the second brush section is pivotably associated to a head section of the toothbrush and includes a pivot portion located within a body of the second brush section, the pivot portion being disposed transversely to a longitudinal axis thereof at approximately a central region thereof, the second brush
5 section including a slot slanted at an angle relative to a plane defined by the body of the second bristle holder, the slot operative to receive the pin, whereby as the motor rotates the shaft the first brush section is driven in an oscillatory manner causing the pin to cyclically engage upper and lower walls of the slanted slot thereby driving the
10 second brush section to oscillate about the pivot.